

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

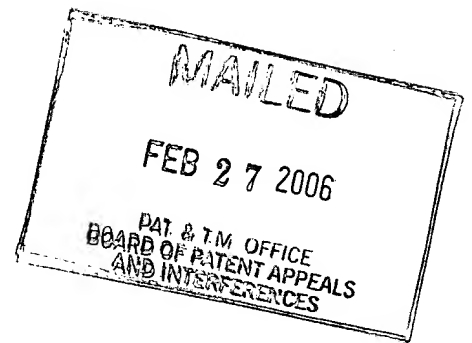
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GIUSEPPE CROCE,
ALESSANDRO MOSCATELLI,
ALESSANDRA MERLINI and
PAOLA GALBIATI

Appeal No. 2006-0255
Application 09/839,596

ON BRIEF



Before JERRY SMITH, LEVY, and BLANKENSHIP, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 5-18. Pending claims 19-25 stand withdrawn from consideration.

The disclosed invention pertains to a lateral diffused metal oxide semiconductor (LDMOS) integrated device.

Representative claim 5 is reproduced as follows:

5. A lateral diffused metal oxide semiconductor (LDMOS) integrated device comprising:

a semiconductor substrate;

a drain region of a first conductivity type adjacent said semiconductor substrate and comprising a superficial buffer region being more heavily doped than adjacent portions of said drain region;

a body region completely surrounded on a bottom and sides thereof by said buffer region and having a second conductivity type; and

a source region in said body region and having the first conductivity type.

The examiner relies on the following references:

Contiero et al. (Contiero)	5,041,895	Aug. 20, 1991
Huang	5,665,988	Sep. 09, 1997

Claim 5 stands rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Huang. Claims 6-11 and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Huang taken alone. Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Huang in view of Contiero.

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Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the applied prior art supports the examiner's rejections of claims 5-18. Accordingly, we affirm.

We consider first the rejection of claim 5 as anticipated by Huang. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed.

Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner has indicated how the invention of claim 5 reads on the disclosure of Huang [answer, page 3]. Appellants argue that no device in Huang can be characterized as an LDMOS device. Appellants also argue that the examiner has mischaracterized the device of Huang [brief, pages 5-6]. The examiner responds that an LDMOS device is the same as an IGBT device except for the presence of an additional diode. The examiner also asserts that claim 5 only refers to an LDMOS device in the preamble, but the body of the claim reads on the Huang device. The examiner reiterates that the invention as broadly disclosed and as recited in claim 5 can be read on the device disclosed by Huang [answer, pages 7-10].

We will sustain the examiner's rejection of claim 5. We agree with the examiner that the recitation of an LDMOS device in the preamble of claim 5 does not patentably distinguish over the device of Huang. The key question is whether the structure recited within the body of claim 5 exists within the device disclosed by Huang. One cannot make an old structure patentable by calling it something else. We also agree with the examiner that appellants' disclosure describes an LDMOS device by noting a

specific arrangement of conductive regions within a semiconductor substrate. In view of the discussion above, we look to see if the device recited in claim 5 exists in the Huang device. The regions of conductivity as recited in claim 5 exist in Huang as pointed out by the examiner. In our view, the question is whether the regions identified by the examiner can properly be called a "drain region," a "body region" and a "source region" as recited in claim 5. The examiner identifies source region 11 of Huang as the claimed source region, and region 11 is described as a source region in Huang [column 7, lines 6-7]. The claimed body region connotes no particular function, and region 9 of Huang can be a body region as identified by the examiner. The examiner identifies region 2 of Huang as the drain region. This region 2 is separated from the source region 11 by the body region 9 and the buffer region 13 as identified by the examiner. Huang discloses that the buffer region 13 prevents punch-through between region 9 and region 2 [column 7, lines 14-16]. The fact that buffer region 13 of Huang prevents punch-through suggests that region 2 acts as a drain with respect to source 11 in Huang's device. Therefore, region 2 of Huang is a drain region as asserted by the examiner. Thus, the regions as recited in claim 5 exist in Huang in the manner recited in claim 5.

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We now consider the rejections under 35 U.S.C. § 103(a). Appellants have presented no arguments with respect to these rejections. Since we find that the examiner's rejections under 35 U.S.C. § 103 established at least a prima facie case of obviousness, and since appellants have offered no arguments in rebuttal, we sustain the examiner's rejections of claims 6-18 for the reasons given in the rejections and in view of our comments above.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 5-18 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

Jerry Smith
JERRY SMITH

JERRY SMITH
Administrative Patent Judge

Stuart A. Lee

STUART S. LEVY
Administrative Patent Judge

Howard B. Blankenship

HOWARD B. BLANKENSHIP
Administrative Patent Judge

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